REMARKS

Claims 1-20 were pending in this application when last examined. Claims 1-4 and 10-11 are currently amended and new claims 21-25 have been added.

Support for the amendments can be found in the specification and original claims as filed. Support can be found, for example, at page 6, lines 15-18, and 23-29; page 7, lines 1-2; page 8, lines 28-29; page 11, lines 4-9; and Example 4. No new matter has been added.

Applicants gratefully acknowledge the time and consideration provided by Examiners Browe and Azpuru during the November 30, 2010 Examiner interview. The present amendments incorporate the helpful suggestions provided by the Examiners to distinguish over the cited references.

CLAIM REJECTION - 35 USC § 103

At page 3, the Office Action rejects claims 1-20 under 35 U.S.C. § 103(a) as being unpatentable over AGERUP (US 5,827,937) in view of MILLER (US 6,174,999). Applicants respectfully traverse the rejection.

AGERUP describes a process for the production of a gel that includes initiating a cross-linking reaction; sterically hindering the cross-linking reaction by diluting the reaction; concentrating the reaction to reintroduce sterically unhindered conditions; and continuing the cross-linking. The presently claimed

process is distinct from the AGERUP process and produces a gel that is different from that produced by AGERUP.

Present claim 1 is directed to a process for the production of a polydensified monophasic gel, comprising the steps of: (a) starting a crosslinking reaction of a predetermined quantity of at least one biocompatible polymer in solution by the addition of a quantity of crosslinking agent in a first volume of a reaction mixture, and (b) crosslinking said quantity of polymer. The process is then followed by the successive steps consisting of: (c) adding a supplemental quantity of polymer of a molecular weight higher than 500,000 Da in solution with dilution of the reaction mixture so as to decrease the overall concentration of the polymer in a second volume of the reaction mixture, (d) continuing crosslinking in the second volume of the reaction mixture, and (e) stopping the crosslinking reaction by elimination of the crosslinking agent, to produce the polydensified monophasic gel.

AGERUP utilizes a “dilution-concentration technique” to produce a gel. In other words, AGERUP creates sterically hindered conditions to essentially stop the first cross-linking reaction. This is accomplished by largely diluting the reaction. The reaction is then concentrated by evaporating or dialyzing the mixture in order to restart the reaction (see, column 3, lines 48-56 and column 4, lines 53-54).

In distinction from AGERUP, the presently claimed method does not utilize the "dilution-concentration" process. After a first cross-linking reaction, the gel is produced by a series of steps consisting of steps c) through e). During these steps, a supplemental quantity of polymer is added to produce a "second volume" and cross-linking is continued in the second volume of the reaction mixture until the reaction is stopped to produce a polydensified monophasic gel. No "dilution-concentration" process occurs.

The Office Action relies on MILLER merely for teaching how to stop a polymerization reaction by eliminating a non-polymeric reactant from the reaction mixture by dialysis.

As detailed in the previous Response dated October 4, 2010, the two methods, AGERUP and the presently claimed method, produce distinct products. While the AGERUP method produces what is described as a "biphasic" gel having hyaluronic acid "chunks", the presently claimed method produces a "monophasic" gel having a "spider web" network. Applicants respectfully refer to the previous Response with the documentation provided in the Appendix.

For all of the reasons as set forth in the above remarks, AGERUP and MILLER fail to teach or suggest, and would not have rendered obvious, the methods of claims 1-9 and 13-18, the gel of claims 10-11 and the method of claim 12.

New claim 21 defines a process for the production of a biocompatible crosslinked polydensified monophasic gel, consisting of steps a) through e). New claim 22 defines an amount of supplemental polymer added in step c). New claims 23-25 further define the gels produced by the methods of claims 1 and 21.

CONCLUSION

Entry of the above amendments is earnestly solicited. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Please charge the fee of $260.00 for the extra dependent claims added in which the fees are being paid online simultaneously herewith by credit card

The Commissioner is hereby authorized in this, concurrent, and future submissions, to charge any deficiency or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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